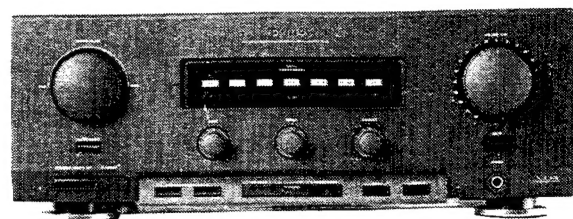


Service
Service
Service



Service Manual

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(GB)

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified, be used.

(F)

Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utilisées les pièces de rechange identiques à celles spécifiées.

(NL)

Veiligheidsbepalingen vereisen, dat het apparaat bij reparatie in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde, worden toegepast.

(D)

Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Originalzustand des Geräts darf nicht verändert werden; für Reparaturen sind Original-Ersatzteile zu verwenden.

(I)

Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati i pezzi di ricambio identici a quelli specificati.

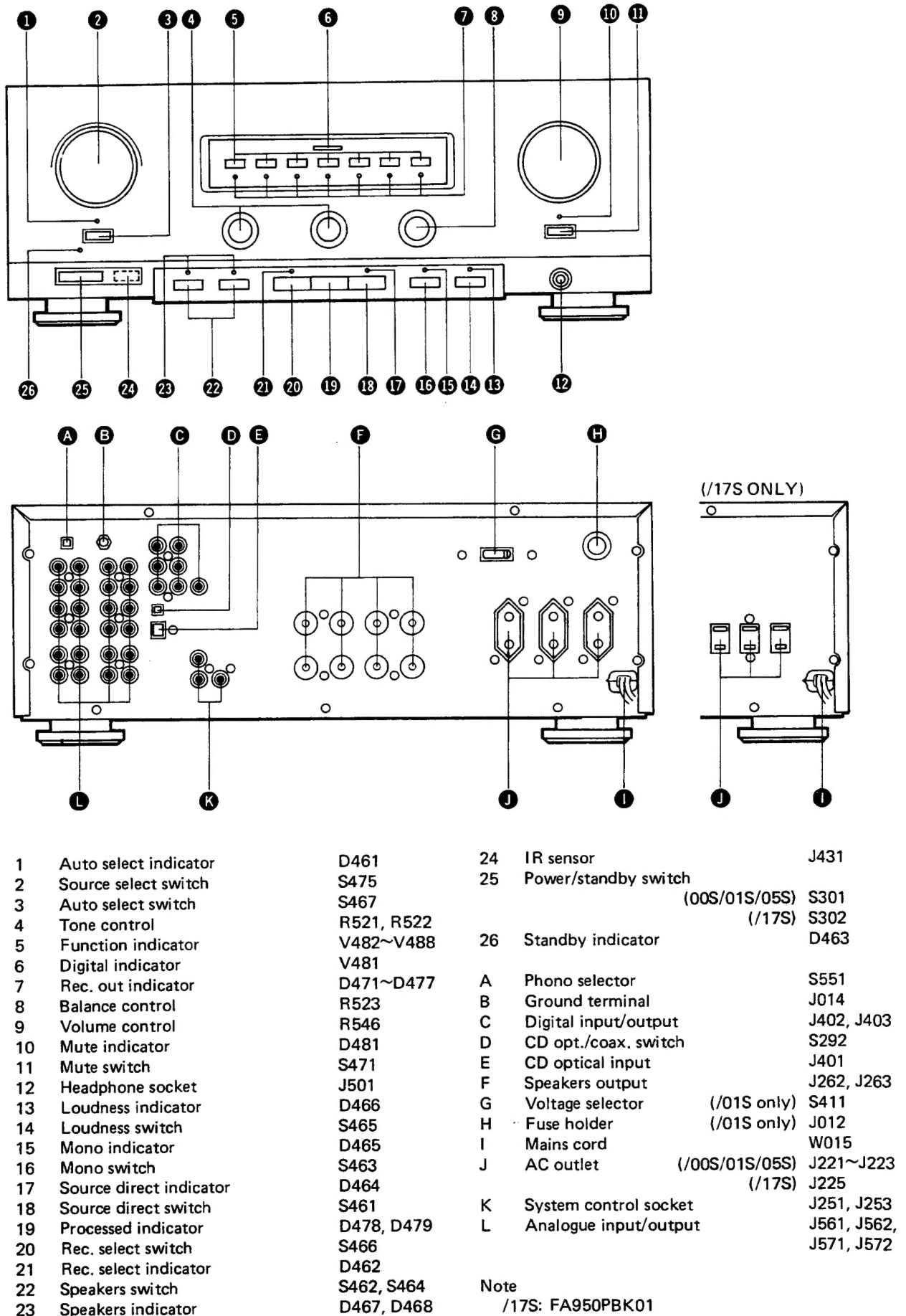


SPECIFICATION

General		Nominal value	Typical value
Mains voltage		: 220V ~ (/00S), 120/220/240V ~ (/01S) : 240V ~ (/05S), 120V ~ (/17S)	: 220V ~ (/00S), 120/220/240V ~ (/01S) : 240V ~ (/05S), 120V ~ (/17S)
Mains frequency		: 50 Hz (/00S/05S), 50/60 Hz (/01S), 60 Hz (/17S)	: 50 Hz (/00S/05S), 50/60 Hz (/01S), 60 Hz (/17S)
Power consumption		: 420W	: 420W
Dimensions (WxHxD)		: 435 x 146 x 380 mm	: 435 x 146 x 380 mm
Weight		: 10 kg	: 10 kg
Amplifier			
Output power		: 100W in 8Ω (IEC)	: 103W in 8Ω (IEC)
Distortion T.H.D.		: ≤ 0.09% at 1 kHz : ≤ 0.7% at 63 Hz – 12.5 kHz } (IEC) : ≤ 0.09% at 60/7000 Hz 4:1	: ≤ 0.05% at 1 kHz : ≤ 0.05% at 63 Hz – 12.5 kHz } (IEC) : ≤ 0.05% at 60/7000 Hz 4:1
Intermodulation			
Frequency characteristic			
Phono input	} tone control neutral	: from 20 Hz – 20 kHz ±1 dB (IEC/RIAA)	: from 20 Hz – 20 kHz ±0.5 dB (IEC/RIAA)
Other inputs		: from 10 Hz – 45 kHz ±1 dB	: from 10 Hz – 50 kHz ±1 dB
Bass control		: at 100 Hz +10 dB to –10 dB ±2 dB	: at 100 Hz +10 dB to –10 dB
Treble control		: at 10 kHz +10 dB to –10 dB ±2 dB	: at 10 kHz +10 dB to –10 dB
Loudness		: at 100 Hz +6 dB ±2 dB : at 10 kHz +4 dB ±1.5 dB } –30dB position	: at 100 Hz +6 dB } –30dB position : at 10 kHz +4 dB } –30dB position
Signal/noise ratio weighted (A-curve)			
Phono input	(MM)	: for 1W output ≥ 75 dB (IHF)	: for 1W output ≥ 80 dB (IHF)
	(MC)	: for 1W output ≥ 64 dB (IHF)	: for 1W output ≥ 70 dB (IHF)
Other inputs		: for 1W output ≥ 83 dB (IHF)	: for 1W output ≥ 86 dB (IHF)
Channel separation		: at 1000 Hz ≥ 45 dB : at 250 Hz – 10 kHz ≥ 40 dB	: at 1000 Hz ≥ 60 dB : at 250 Hz – 10 kHz ≥ 45 dB
Input sensitivity/Input impedance			
Audio			
Phono	(MM)	: 2.5 mV/47 kΩ	: 2.5 mV/47 kΩ
	(MC)	: 250 μV/100Ω	: 250 μV/100Ω
High level (Analogue)		: 150 mV/17 kΩ	: 150 mV/22 kΩ
High level (Digital)		: 250 mVp-p/75Ω (IEC985)	: 200 mVp-p/75Ω (IEC985)
Output level/Output impedance			
DCC/VCR/Tape/CDR/Processor (Analogue)		: 280 mV/600Ω (Phono 5 mV 1 kHz input)	: 280 mV/400Ω (Phono 5 mV 1 kHz input)
DCC/DSP (Digital)		: 500 mVp-p/75Ω (IEC985)	: 500 mVp-p/75Ω (IEC985)

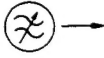





Note
/17S: FA950PBK01

CONNECTIONS AND CONTROLS



ADJUSTMENT

Idling Current

SK... SWITCH	 SIGNAL	 TO	 VOLUME	 ADJUST	 OSCILLOSCOPE	 D.C. METER INDICATOR
			Min.	Lch R323		Lch TP1 (+), TP3 (-) DC 15 mV (41.7 mA)
				Rch R324		Rch TP2 (+), TP4 (-) DC 15 mA (41.7 mA)

(GB) Notes:

- 1 minute after the power has been switched ON, adjust to read 15 mV DC.
- If the heat-sink temperature is higher than the ambient temperature, switch the power OFF, and leave the unit until the heat-sink temperature falls equal to or below the ambient temperature before proceeding to the idling current adjustment.

(F) Remarques:

- 1 minute après avoir fourni l'alimentation, ajuster pour lire 15 mV CC.
- Si la température de la plaque de refroidissement est supérieure à la température ambiante, couper l'alimentation et laisser l'appareil jusqu'à ce que la température de la plaque de refroidissement soit égale ou inférieure à la température ambiante avant de passer à l'ajustement du courant déwatté.

(NL) Opmerkingen:

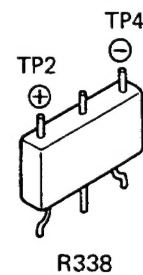
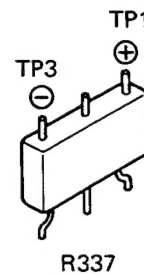
- Maak de instelling zodanig dat 15 mV gelijkstroom aangegeven wordt na 1 minuut nadat de spanning ingeschakeld wordt.
- Als de temperatuur van de warmteput hoger is dan de omringende temperatuur, schakel dan de spanning uit totdat de temperatuur van de warmteput gelijk is aan of lager is dan de omringende temperatuur alvorens over te gaan tot aanpassen op de stationaire stroom.
















(D) Anmerkungen:

- 1 Minute nach Einschalten der Spannungsversorgung so einstellen, daß 15 mV Gleichstrom angezeigt wird.
- Wenn die Temperatur des Kühlkörpers höher ist als die Umgebungstemperatur, die Spannungsversorgung ausschalten und warten, bis die Temperatur des Kühlkörpers gleich der oder niedriger als die Umgebungstemperatur wird, bevor die Ruhestrom-Einstellung durchgeführt wird.

(I) Note:

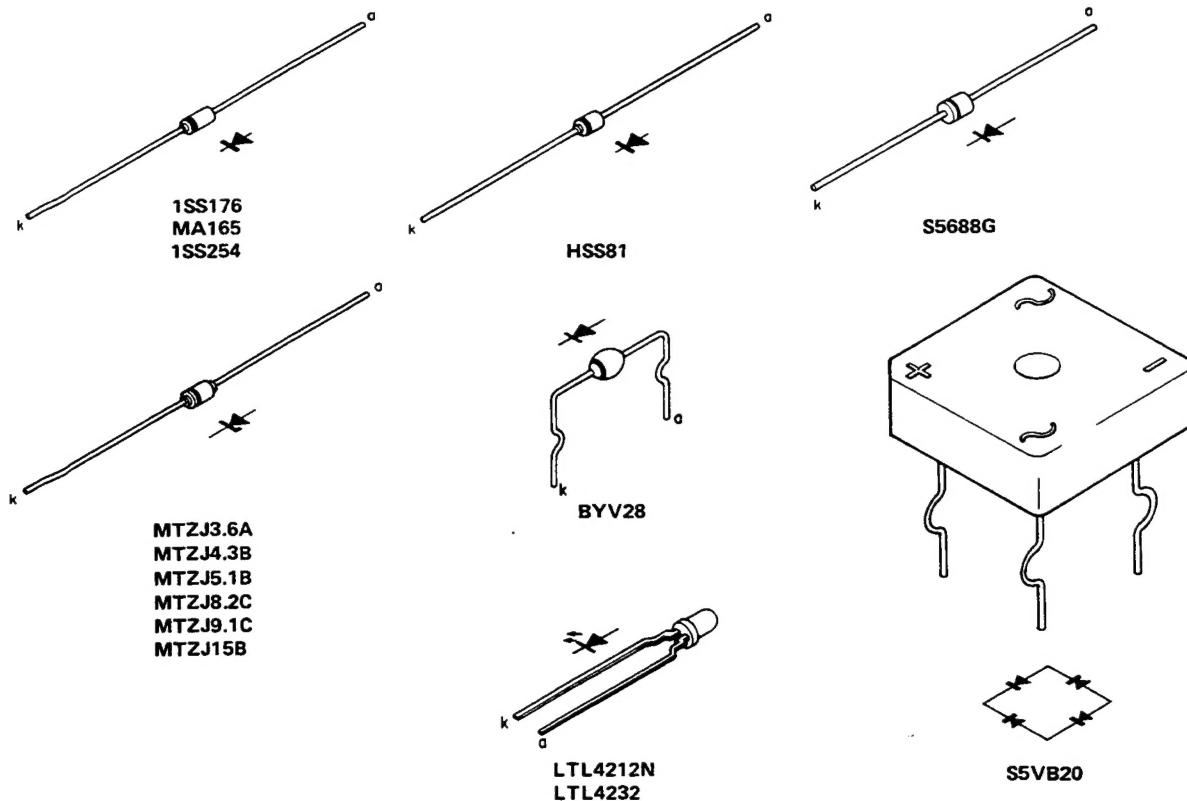
- Fate in modo de ottenere un valore di 15 mV di c.c. un minuto dopo l'accensione.
- Se la temperatura degli organi di dispersione del calore è superiore a quella dell'ambiente, spegnete l'unità e lasciatela raffreddare sino a che la sua temperatura non diviene uguale o inferiore a quella ambiente, quindi procedete con la regolazione della corrente a riposo.



	Carbon film 0.125 W or 0.2 W	70°C	5%
	Carbon film 0.25 W or 0.33 W	70°C	5%
	Metal film 0.25 W or 0.33 W	70°C	5%
	Carbon film 0.5 W	70°C	5%
	Carbon film 0.67 W	70°C	5%
	Carbon film 1 W or 1.15 W	70°C	5%
 Chip component			
	Ceramic plate Tuning ≤ 120 pF NP.0	2%	
	Others	-20/+80%	
	Polyester flat foil	10%	
	Metalized polyester flat film	10%	
	Polyester flat foil small size (Mylar)	10%	
	Polystyrene film/foil	1%	
	Tubular ceramic		
	Miniature single		
	Subminiature tantalum	$\pm 20\%$	

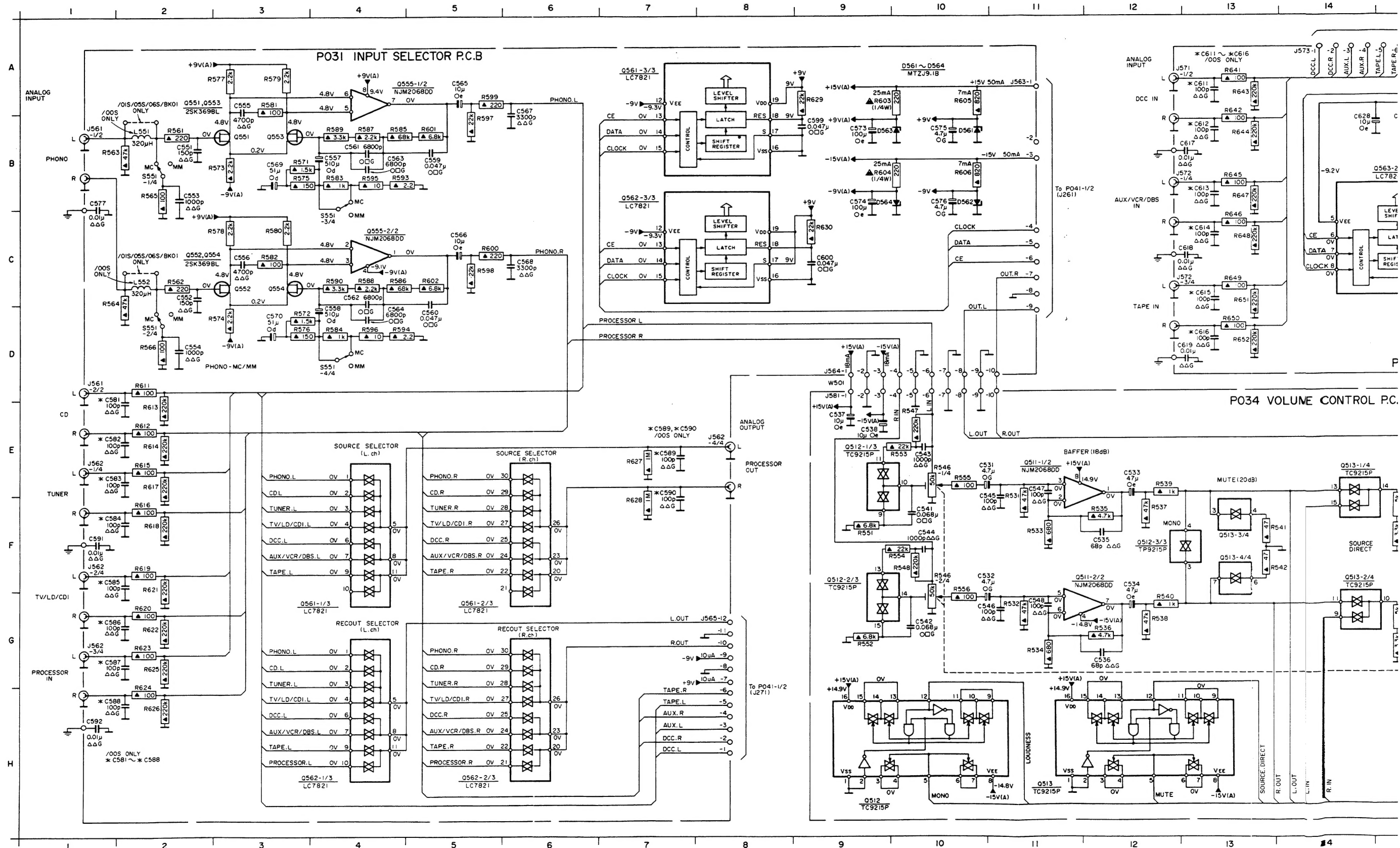
*a = 2.5 V
b = 3.15 V
or 4 V
c = 6.3 V
d = 10 V
e = 16 V
f = 25 V
g = 40 V
h = 63 V
j = 100 V
l = 125 V
m = 150 V
n = 160 V
q = 200 V
r = 250 V
s = 300 V
t = 350 V
u = 400 V
v = 500 V
w = 630 V
x = 1000 V
A = 1.6 V
B = 6 V
C = 12 V
D = 15 V
E = 20 V
F = 35 V
G = 50 V
H = 75 V
I = 80 V

SEMICONDUCTOR LAYOUT



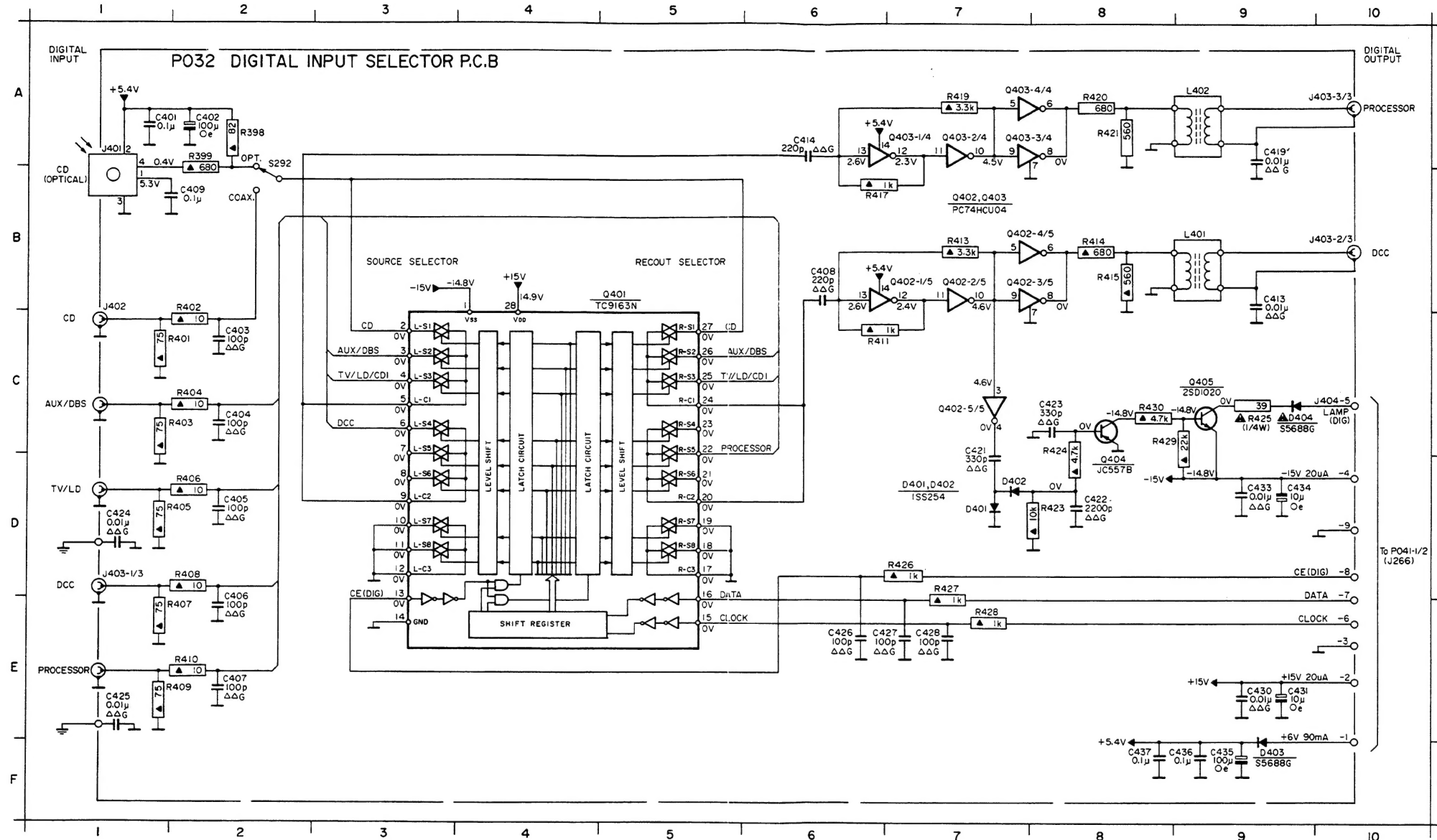
SCHEMATIC DIAGRAM AND PARTS LOCATION

C531 E10	C542 G10	C554 D2	C564 D4	C576 B10	C589 E7	C615 C13	C626 C18	J562 E8	L552 C2	Q513 H11	R562 B7	R536 G12	R546 F10	R556 G10	R574 D3	R584 D4	R596 D4	R606 B10	R620 G2	R630 C9	R650 D13	S551 C4
C532 F10	C543 E10	C555 A3	C565 A5	C577 B1	C590 F7	C616 D13	C627 A15	J562 F1	Q511 E11	Q551 B3	R562 H4	R537 F12	R546 F15	R561 B2	R575 B3	R585 B4	R597 B5	R611 D2	R621 F2	R641 A13	R651 D13	S551 D2
C533 F12	C544 F10	C556 C3	C566 C5	C578 B1	C591 F1	C617 B13	C628 A14	J562 G1	Q512 G1	Q552 C3	R562 H5	R538 G12	R546 G15	R562 C2	R576 D3	R586 C4	R598 C5	R612 E2	R622 G2	R642 A13	R652 D13	S551 D4
C534 G12	C545 F10	C557 B4	C567 A6	C579 B1	C592 E1	C618 C13	C629 B10	J571 A13	Q512 F9	Q553 B3	R563 B15	R539 F12	R547 E10	R563 B1	R577 A3	R587 B4	R599 A5	R613 E2	R623 G2	R643 A13	R653 A17	
C535 F12	C546 G10	C558 D4	C568 C6	C579 B1	C593 E1	C619 D13	C630 B10	J571 A18	Q512 F12	Q554 C3	R563 B16	R540 F12	R548 F10	R564 C1	R578 C3	R588 C4	R600 C5	R614 E2	R624 G2	R644 B13	R654 B17	
C536 G12	C547 F11	C559 B5	C569 B3	C579 B1	C594 F1	C620 A18	C631 B9	J572 B1	Q512 H9	Q555 A4	R563 B17	R541 F13	R551 F9	R565 B2	R579 A3	R589 B4	R601 B5	R615 E2	R625 G2	R645 B13	R655 B17	
C537 E9	C548 G11	C560 D5	C570 D3	C579 B1	C595 F1	C621 B13	C632 B18	J572 B18	Q512 G9	Q556 A4	R563 B18	R542 F13	R552 G9	R566 D2	R579 A3	R589 B4	R602 C5	R616 E2	R626 H2	R646 C13	R656 C17	
C538 E9	C549 G11	C561 B4	C571 B9	C579 B1	C596 G1	C622 B13	C633 B18	J572 C12	Q513 E14	Q557 A4	R563 B19	R543 F13	R553 G9	R567 D2	R579 A3	R589 B4	R603 A9	R617 E2	R627 E7	R647 B13	R657 C17	
C539 F16	C550 C2	C562 C4	C572 B9	C579 B1	C597 G1	C623 B13	C634 C18	J572 C18	Q513 F13	Q558 A4	R563 B20	R544 F13	R554 F10	R568 D2	R579 A3	R589 B4	R604 B9	R618 E2	R628 F7	R648 C13	R658 C17	
C541 F10	C551 B2	C563 B4	C573 B9	C579 B1	C598 H1	C624 C18	C635 C18	J572 E1	Q513 G14	Q559 A4	R563 B21	R545 F10	R555 E10	R569 D2	R579 A3	R589 B4	R605 A10	R619 F2	R629 A9	R649 C13	R659 C17	



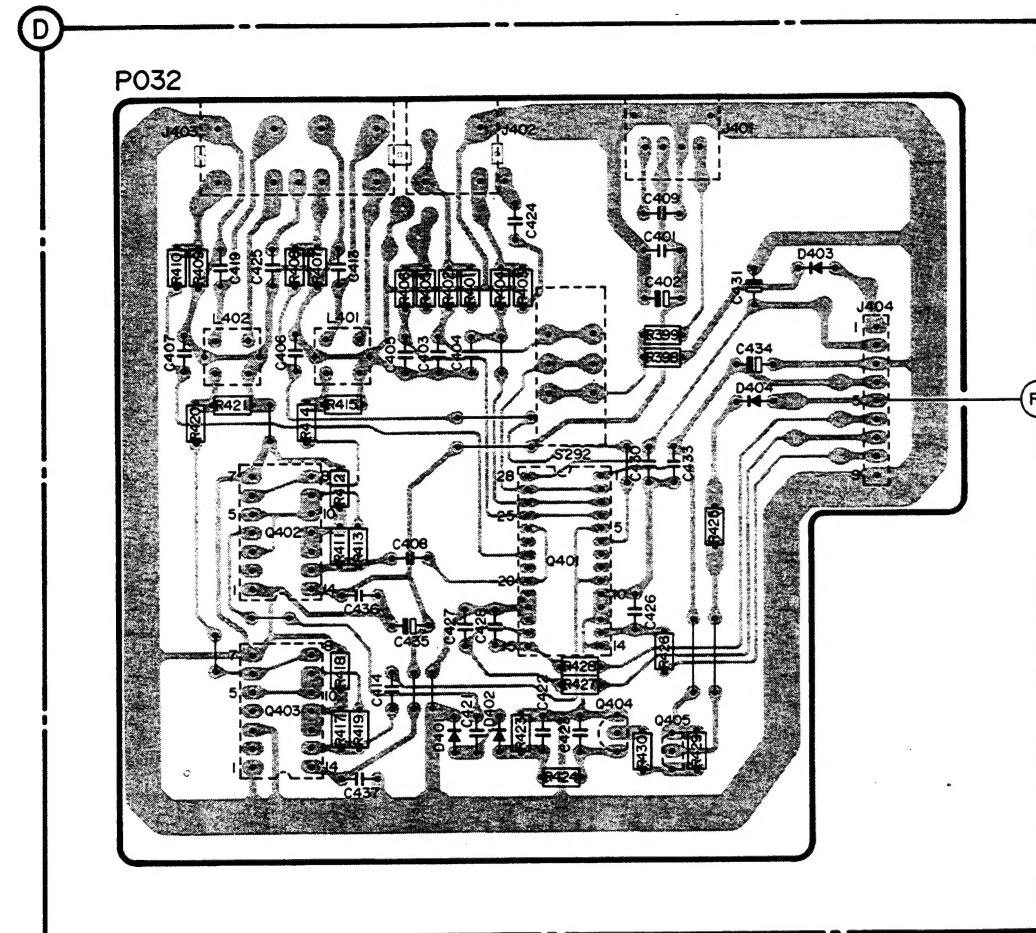
[illegible]

C401 A1	C414 A6	C430 E9	D402 D7	Q402 B7	R404 C2	R415 B8	R428 E7
C402 A2	C419 A9	C431 E9	D403 F9	Q402 C7	R405 D2	R417 B6	R429 C8
C403 C2	C421 C7	C433 D9	D404 C9	Q403 A7	R406 D2	R419 A7	R430 C3
C404 C2	C422 D8	C434 D9	J401 A1	Q404 D8	R407 E2	R420 A8	S292 A2
C405 D2	C423 C8	C435 F9	J402 B1	Q405 C9	R408 D2	R421 A8	
C406 D2	C424 D1	C436 F9	J403 A10	R398 A2	R409 E2	R423 D8	
C407 E2	C425 E1	C437 F8	J403 B10	R399 A2	R410 E2	R424 C8	
C408 B6	C426 E6	D401 D7	L401 B2	R401 C2	R411 C6	R425 C9	
C409 B2	C427 E6		L402 A9	R402 B2	R413 B7	R426 D7	
C413 B9	C428 E7		Q401 B5	R403 C2	R414 B8	R427 D7	

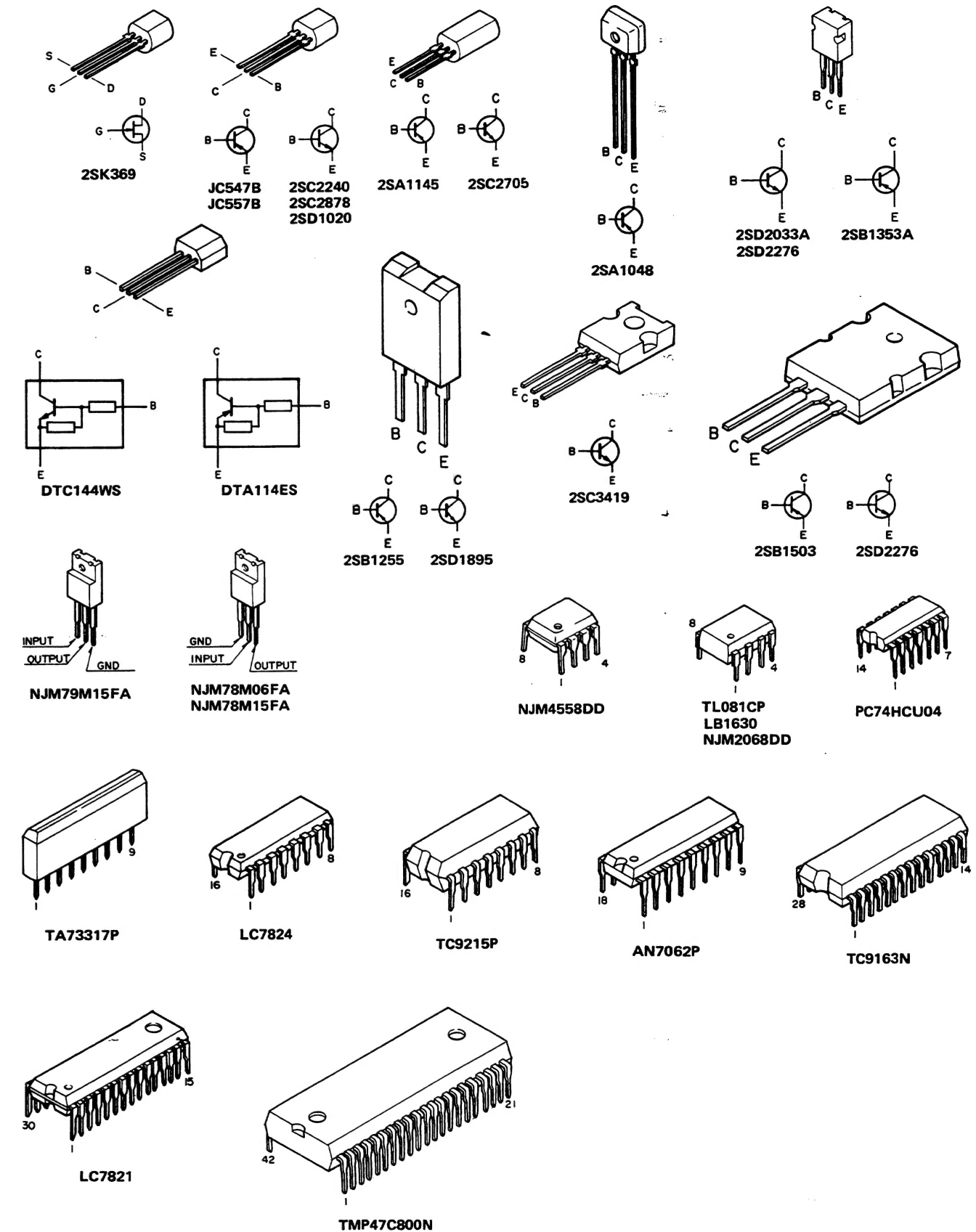


R	R410 R409	R408 R407	R401~R406	R428 R427 R399 R398	R
C	R420 R421	R411 R415 R417 R419	R423 R424	R430 R426 R429 R425	C
D	C407	C419 C425 C406	C413 C405 C403 C404	C424 C409 C401 C402 C431 C434	D
Q			C435~C437 C414 C408 C427 C428 C421~C423 C430 C426 C433		Q
L-S	L402	L401	D401 D402	Q401 Q404 Q405	L-S

SOLDER SIDE VIEW

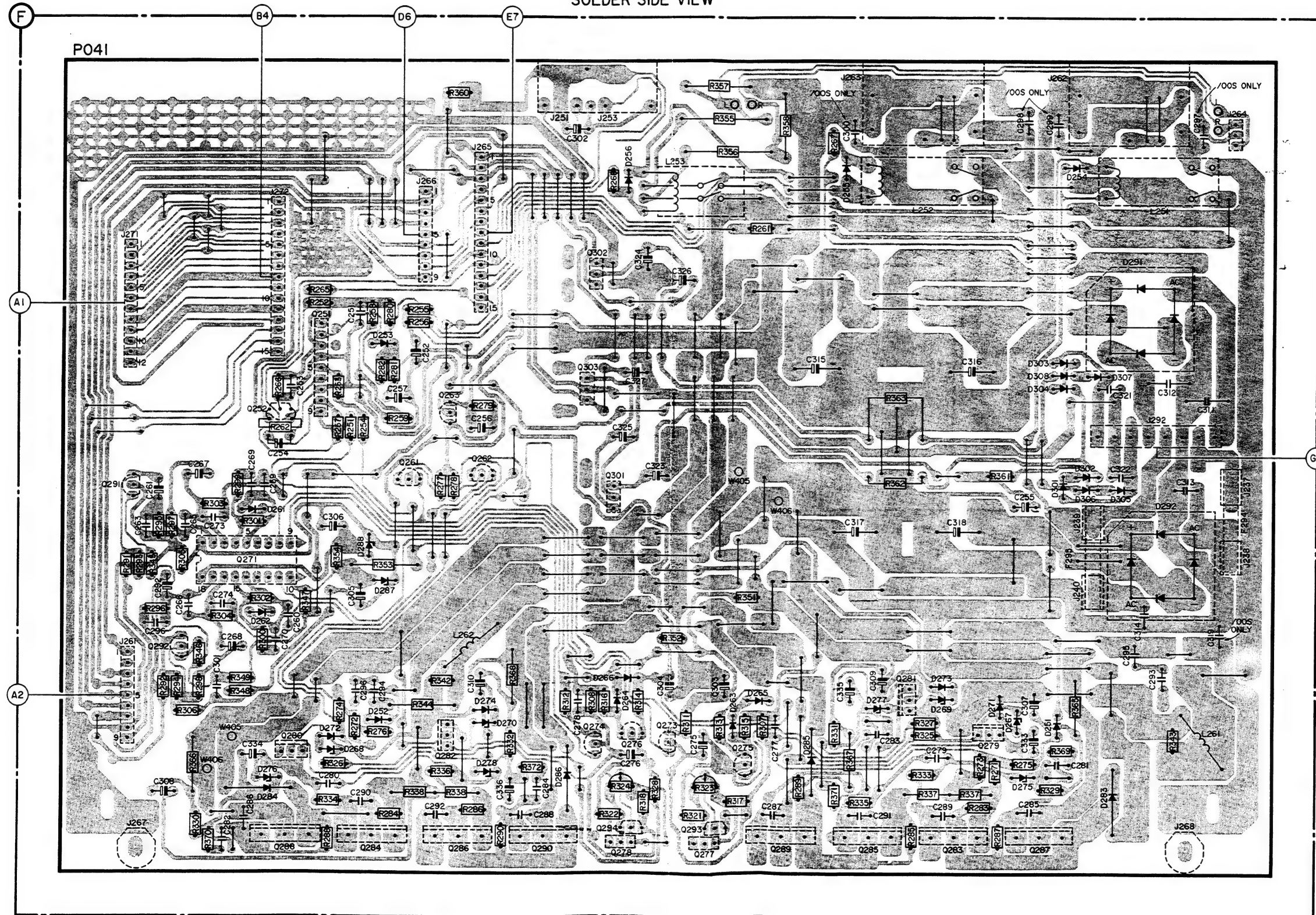


SEMICONDUCTOR LAYOUT



R	R262 R266 R265 R251~R259 R280~R282 R342 R360 R368 R312 R268 R314 R352 R355~R357 R358 R267 R363 R362 R327 R361	R
C	R345 R366 R346 R299 R354 R326 R274 R272 R276 R353 R344 R277~R279 R332 R316 R318 R311 R313 R317 R315 R261 R331 R367 R325 R273 R271 R275 R365 R343	C
D	R291~R298 R330 R370 R300~R306 R347~R349 R228 R334 R284 R338 R336 R286 R290 R372 R308 R322 R324 R328 R321 R323 R351 R307 R289 R371 R335 R285 R333 R337 R283 R287 R329 R369	D
Q	C263 C261 C265 C267 C273 C269 C254 C253 C251 C257 C252 C256 C302 C323~C327 C277 C315 C317 C309 C283 C279 C318 C316 C255 C307 C322 C314 C313 C311	Q
F-L	C308 C282 C286 C334 C270 C280 C290 C296 C294 C292 C310 C336 C288 C284 C278 C276 C304 C275 C303 C287 C335 C291 C289 C285 C333 C281 C295 C293 C319	F-L
	D262 D261 D276 D284 D272 D268 D252 D288 D253 D287 D274 D270 D266 D256 D273 D271 D301~D308 D254 D291 D292 D283	
	Q291 Q292 Q271 Q252 Q288 Q280 Q251 Q284 Q261 Q263 Q282 Q286 Q262 Q290 Q301~Q303 Q294 Q273~Q278 Q293 Q289 Q285 Q281 Q283 Q279 Q287	
	L262 L253 L252 F295 L251 L261 F294	

SOLDER SIDE VIEW



P041-1/2 POWER AMP P.C.B

The schematic diagram illustrates the internal circuitry of the P041-1/2 Power Amp P.C.B. The circuit is organized into several functional blocks:

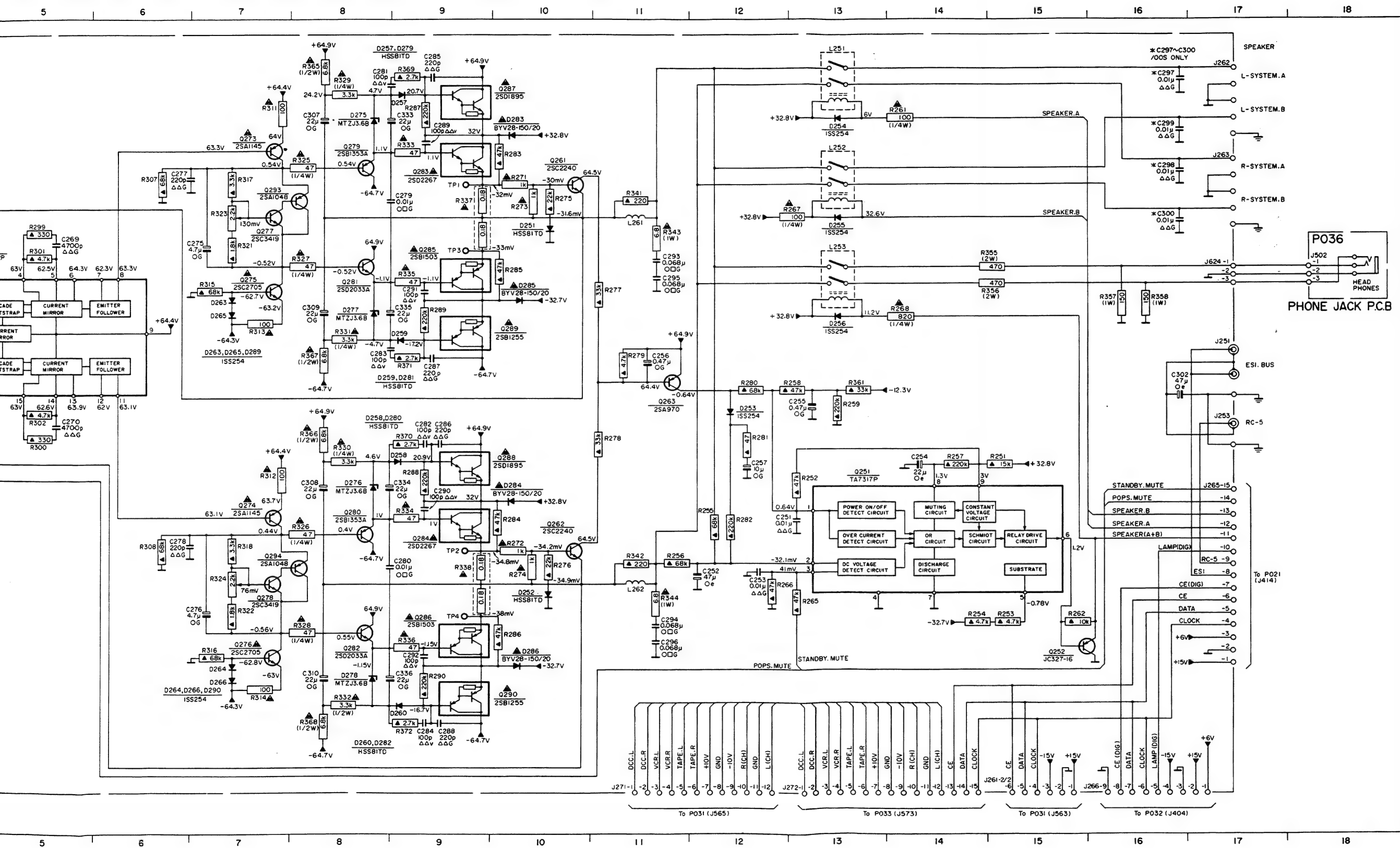
- Input Stage:** Features a differential amplifier (Q291, Q292) and a current source (R291, R292) for signal processing.
- Power Amplifier Stage:** Utilizes a cascade bootstrap (Q271, Q272) and current mirror (Q273, Q274) configuration to drive the output transistors (Q281, Q282).
- Output Stage:** Employs emitter follower transistors (Q283, Q284) to provide the final output signal to the speaker (L251).
- Protection and Control:** Includes a power on/off detect circuit, over current detect circuit, DC voltage detect circuit, and a discharge circuit to ensure safe operation.
- Power Supply:** The circuit is powered by +64.9V and -64.7V rails, with various decoupling capacitors (C) and resistors (R) for stability.

The diagram is labeled with component values and part numbers, and includes a pinout for the P041-1/2 connector.

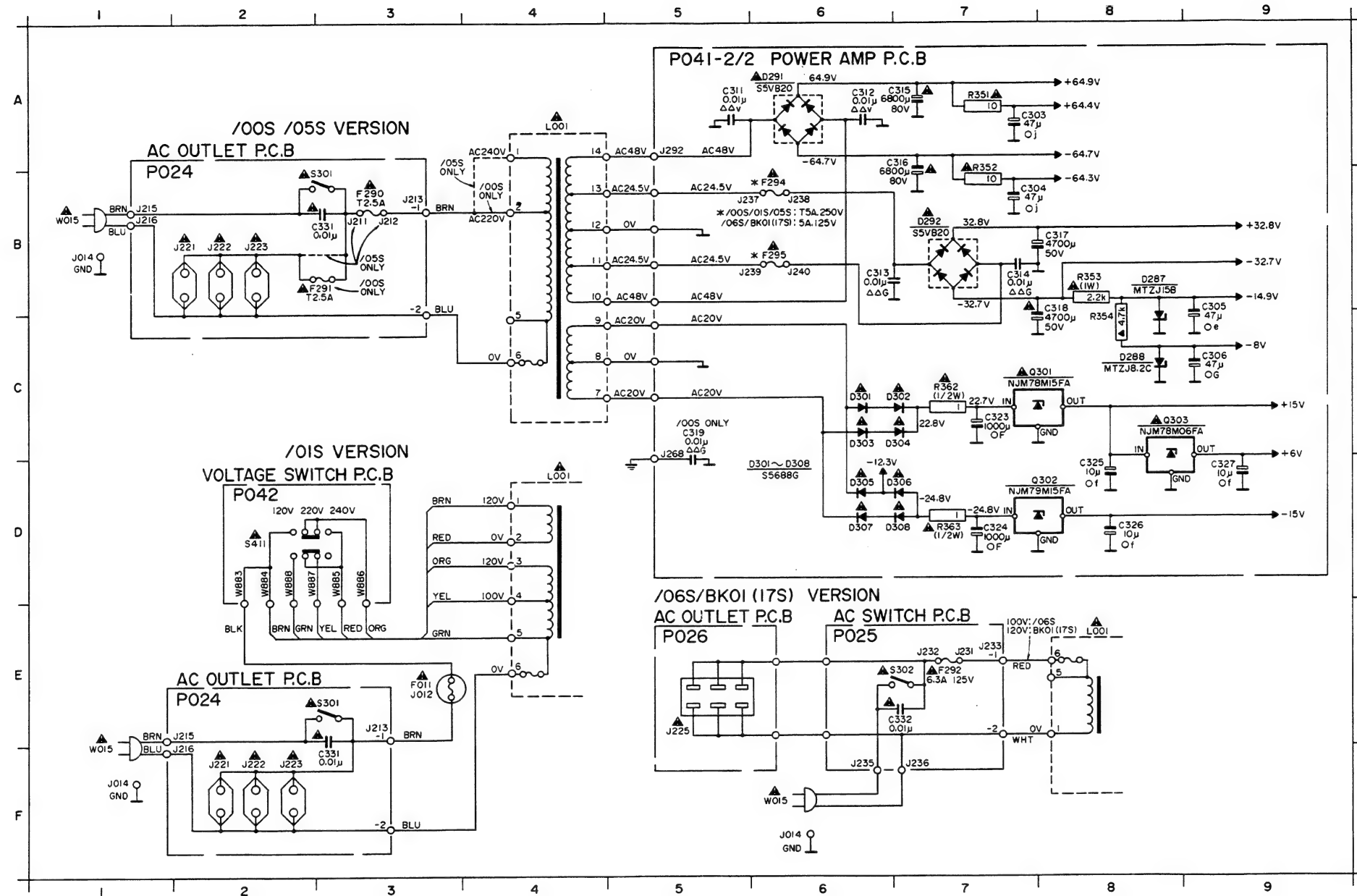
Pinout:

Pin	Signal
1	DCC.L
2	DCC.R
3	VCR.L
4	VCR.R
5	TAPE.L
6	TAPE.R
7	HOV
8	GND
9	-10V
10	RCH
11	GND
12	LCH
13	DCC.L
14	DCC.R
15	VCR.L
16	VCR.R
17	TAPE.L
18	TAPE.R
19	+10V
20	GND
21	RCH
22	GND
23	LCH
24	CE

L261 C11	Q275 C7	Q285 C9	R251 E15	R262 G15	R276 F10	R286 G10	R296 D3	R306 B2	R318 F7	R330 E8	R342 F11	R357 C16	R372 H9
L262 F11	Q276 G7	Q286 G9	R252 E13	R263 G13	R277 C11	R287 B9	R297 C3	R307 B6	R321 C7	R331 D8	R343 F11	R358 C16	
Q251 E13	Q277 C7	Q287 A10	R253 G15	R264 G14	R278 E11	R288 E9	R298 E3	R308 F6	R322 G7	R332 G8	R344 F11	R361 D13	
Q252 G15	Q278 F7	Q288 E10	R254 G14	R265 G12	R279 D11	R289 C9	R299 C5	R311 A7	R323 C7	R333 B9	R345 F11	R362 A8	
Q253 F10	Q279 B8	Q289 D10	R255 F12	R266 C14	R280 E12	R290 G9	R300 C2	R312 F7	R324 F7	R334 F9	R346 F11	R363 D8	
Q254 D11	Q280 F8	Q290 G10	R256 F11	R267 B10	R281 E12	R291 C2	R301 C5	R313 D7	R325 B8	R335 C9	R347 F11	R364 D8	
Q255 C4	Q281 C8	Q291 D2	R257 F14	R268 F10	R282 F12	R292 D2	R302 E5	R314 G7	R326 F8	R336 G9	R348 F11	R365 H8	
Q256 B7	Q282 G8	Q292 D7	R258 D12	R269 B10	R283 B10	R293 D2	R303 C4	R315 C7	R327 C8	R337 B9	R349 F11	R366 A9	
Q257 F7	Q283 B9	Q293 B7	R259 D13	R270 F10	R284 F10	R294 D2	R304 C4	R316 G7	R328 F8	R338 F9	R350 F11	R367 D8	
Q258 F7	Q284 F9	Q294 D7	R260 A14	R271 B10	R285 C10	R295 D2	R305 B2	R317 B7	R329 A8	R339 F9	R351 F11	R368 D8	

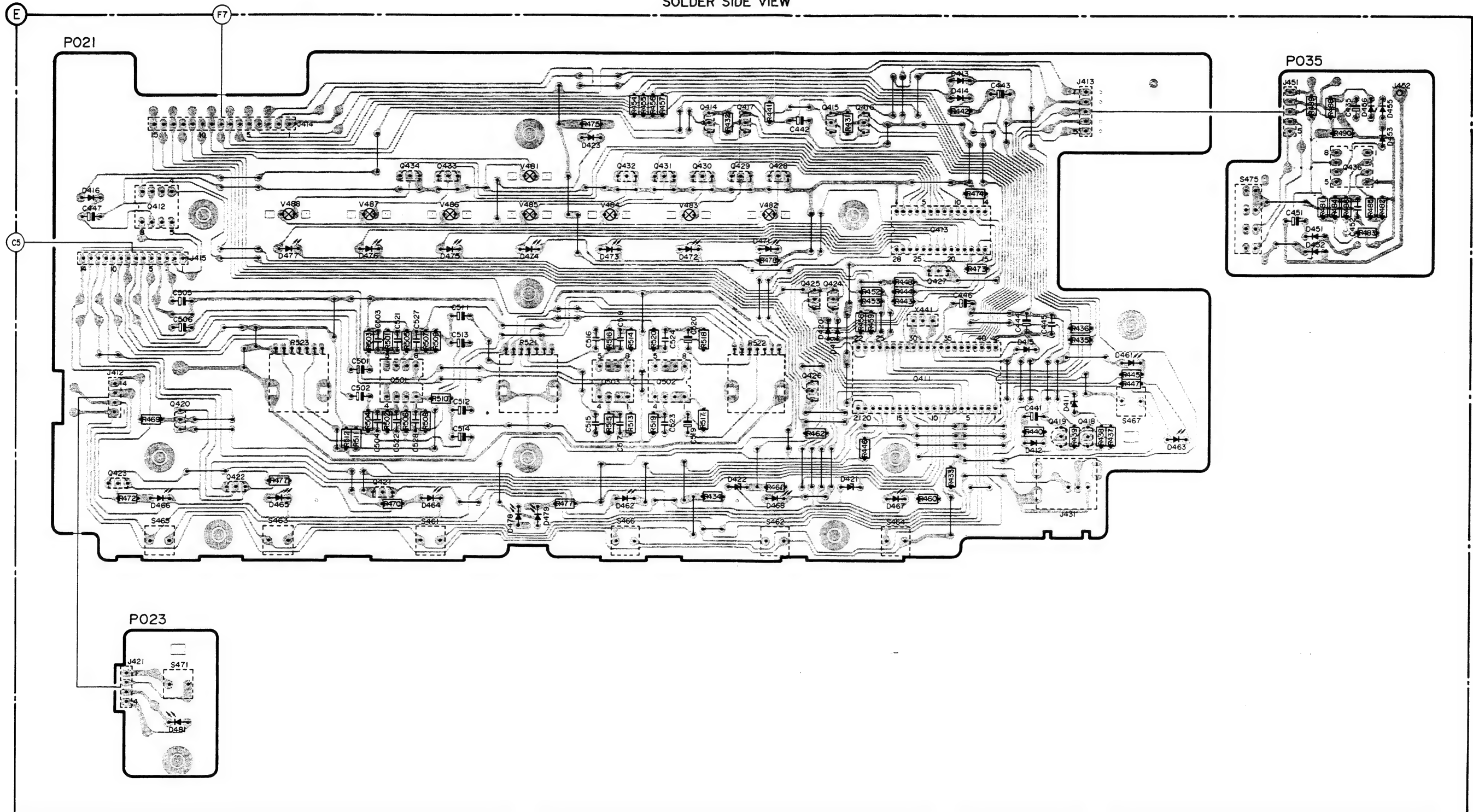


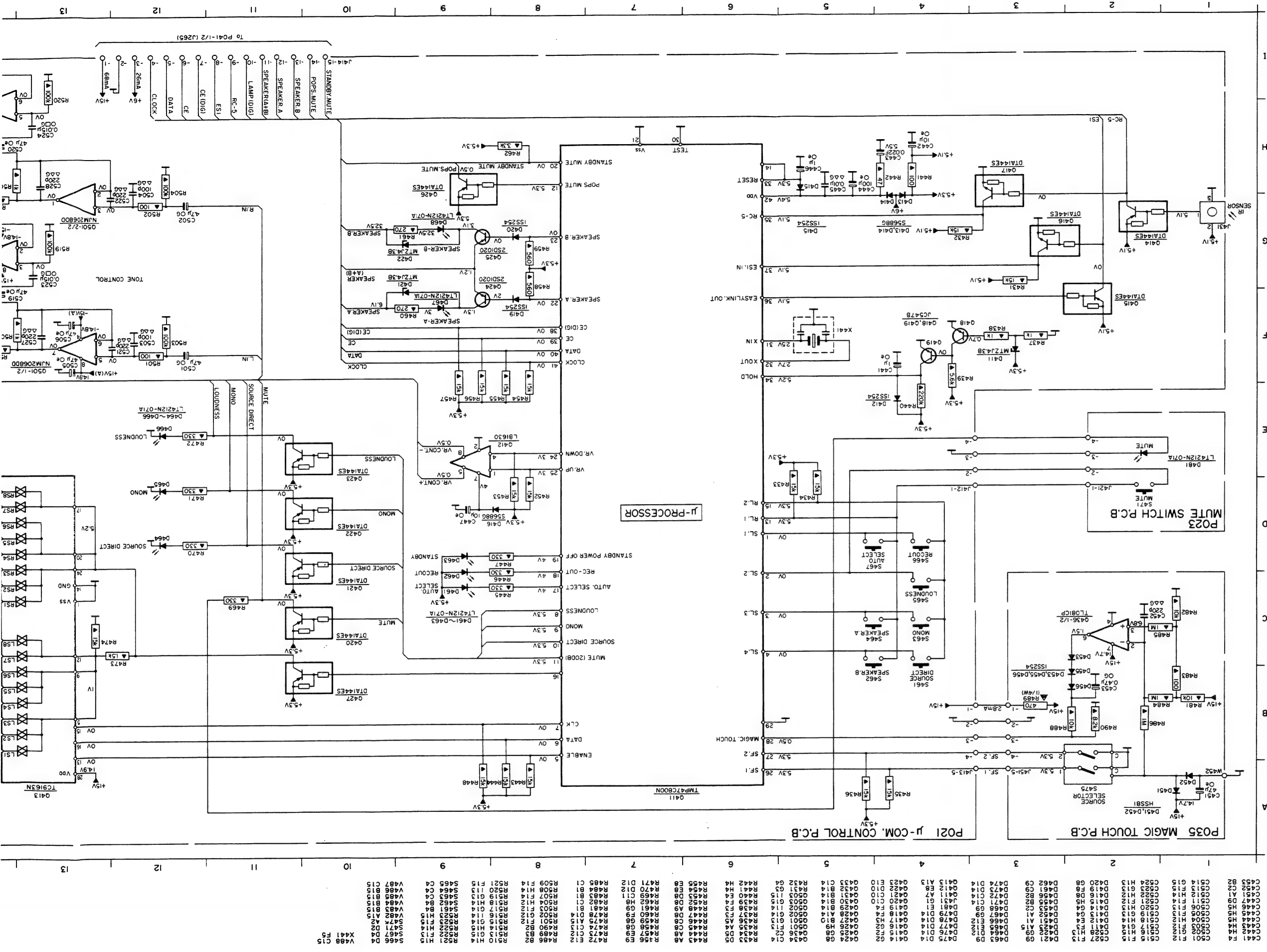
C303 A7	C317 B8	C332 E7	C306 D7	J221 B2	L001 D4	R363 D7	J237 B6
C304 B7	C318 B8	D287 B8	D307 D6	J221 F2	L001 E8	S301 B3	J238 B6
C305 B9	C319 C5	D288 C8	D308 D7	J222 B2	Q301 C7	S301 E3	J239 B6
C306 C9	C323 C7	D291 A6	F011 E3	J222 F2	Q302 D7	S302 E6	J240 B6
C311 A5	C324 D7	D292 B7	F290 B3	J223 B2	Q303 C8	S411 D2	
C312 A6	C325 D8	D301 C6	F291 B3	J223 F2	W015 B1		
C313 B6	C326 D8	D302 C7	F292 E7	J225 E6	W015 E1		
C314 B7	C327 D9	D303 C6	F294 B6	J231 E7	W015 F6		
C315 A7	C331 B3	D304 C7	F295 B6	J232 E7	J211 B3		
C316 A7	C331 E7	D305 D6	J012 E3	L001 A4	R362 C7	J212 B3	

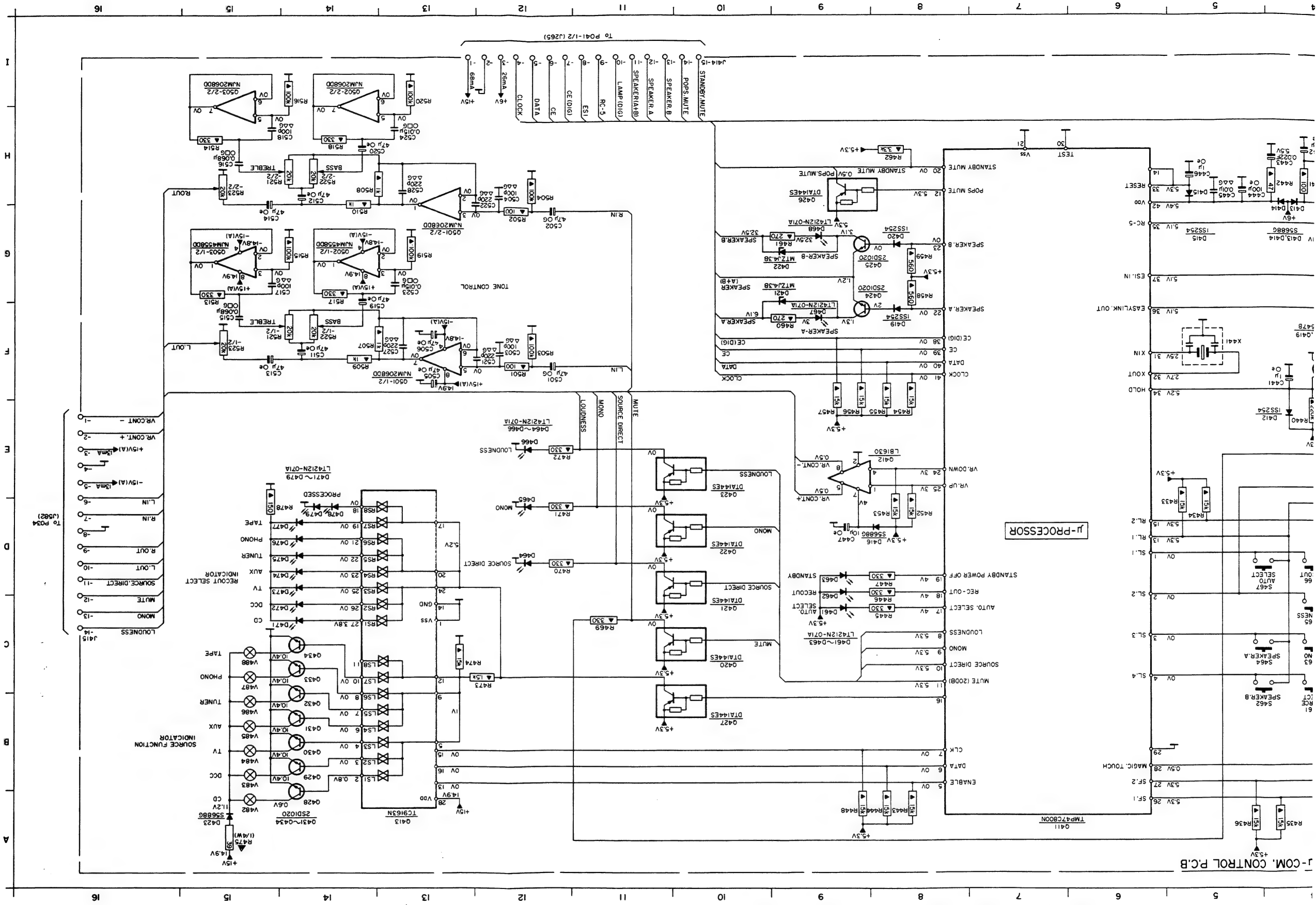


R	R469	R523	R503 R501 R505~R510	R521	R475 R516 R514 R454~R457 R520 R518 R432 R441 R478	R431 R452 R453 R448 R444 R443 R442 R474	R436 R435	R445 R447	R489 R488 R490	R
C	C447	C505	C501~C504 C521 C527 C511~C514	C522 C528	C515~C518 C524 C520	C442	C443	C444 C441 C445	C451 C452	C
D	D416	D477	D476	D475	D474	D423 D473	D472	D471	D420 D419	D
Q	Q412 Q420	Q422	Q421 Q501 Q434 Q433	Q503 Q432	Q431 Q502 Q430 Q414 Q429 Q417 Q428	Q424~Q426 Q415 Q416	Q411 Q427 Q413	Q419 Q418	Q451 D452 D455	Q
S-V-X	S465 S471	S463 V488	V487	S461 V486	V481 V485	V484 S466	V483	V482 S462	S464 X441	S-V-X

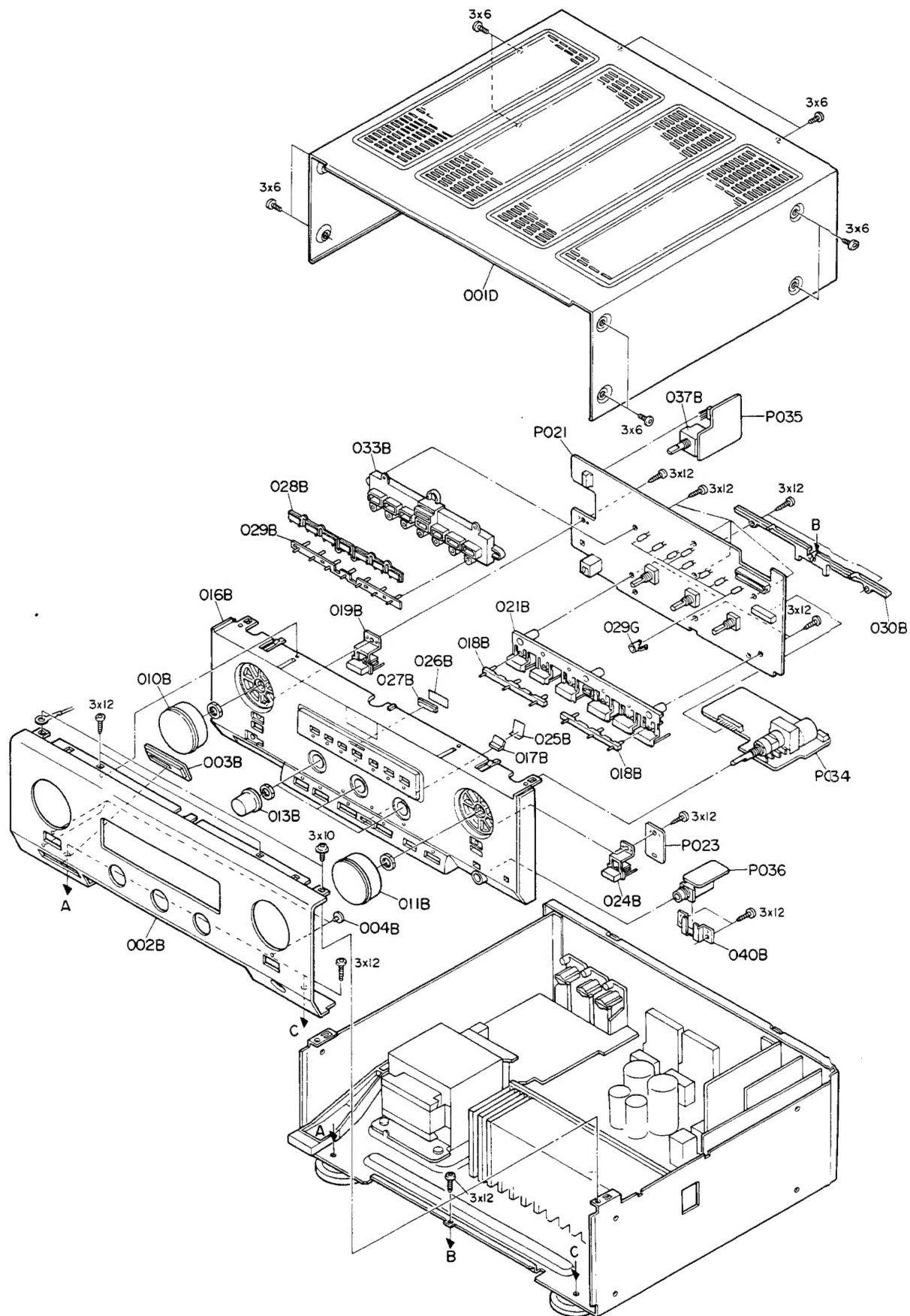
SOLDER SIDE VIEW

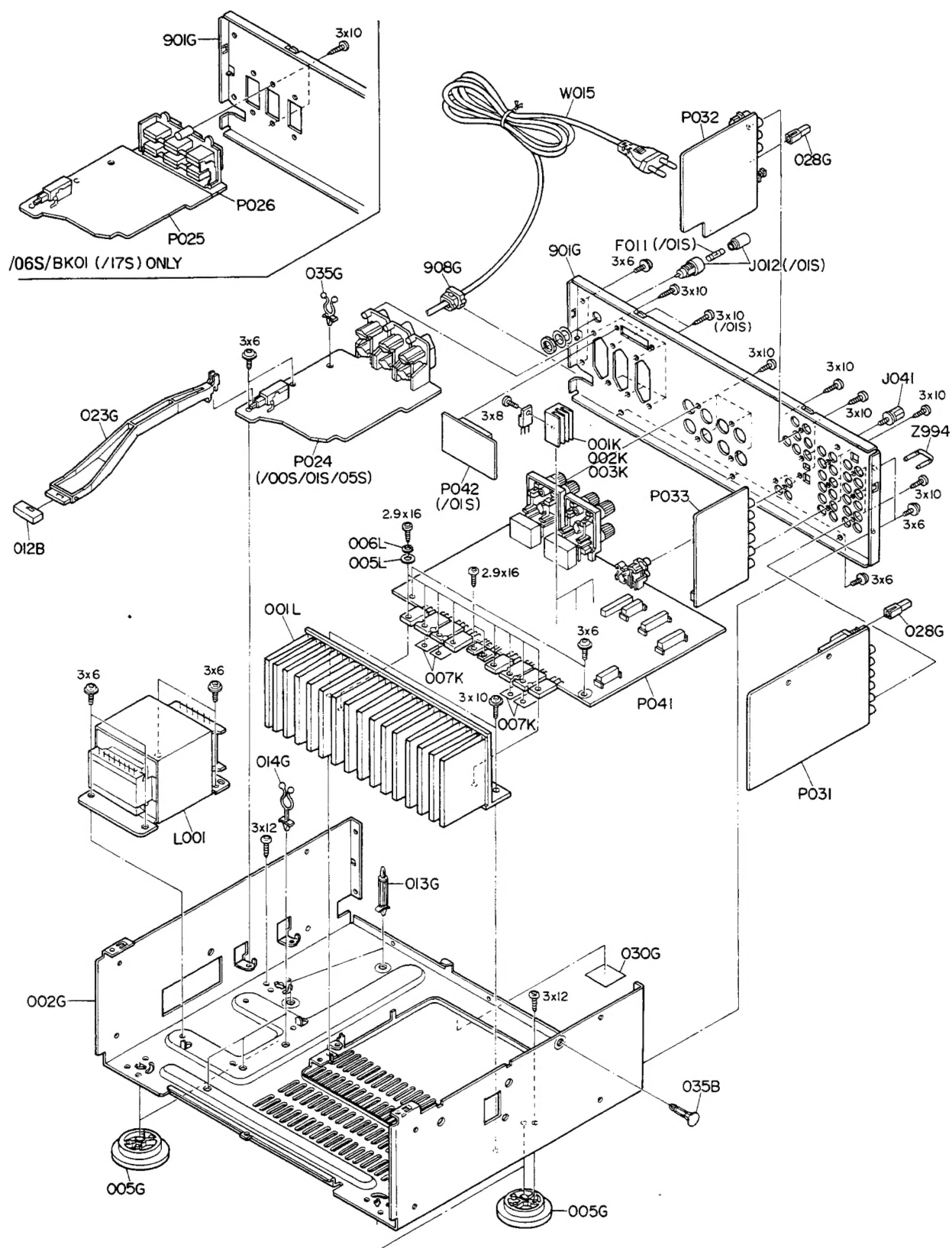






EXPLODED VIEW AND PARTS LIST


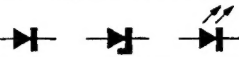




Q251	4822 209 83312	TA7317P	C315, C316	4822 124 80234	Cap. elect 6800 μ F 80V
Q271	4822 209 83732	AN7062P	C317, C318	4822 124 41603	Cap. elect 4700 μ F 50V
Q301	4822 209 82829	NJM78M15FA	C443	4822 124 23295	Cap. big elect 0.022 μ F 5.5V
Q302	4822 209 61526	NJM79M15FA	C557, C558	4822 124 22279	Cap. big elect. 510 μ F 10V
Q303	4822 209 62423	NJM78M06FA	C569, C570	4822 124 22278	Cap. big elect. 51 μ F 10V
Q401	4822 209 83784	IC9163N			
Q402, Q403	4822 209 31539	PC74HCU04			
Q411	4822 209 31541	TMP47C800N			
Q412	4822 209 73287	LB1630			
Q413	4822 209 83784	TC9163N			
Q436	5322 130 42216	TL081CP	S292	4822 276 20519	OPT/COAX
Q501	4822 209 73064	NJM2068DD	S301	4822 276 13285	Power /00S/01S/05S
Q502, Q503	4822 209 83631	NJM4558DD	S302	4822 276 13285	Power BK01
Q511	4822 209 73064	NJM2068DD	S461÷S467	4822 276 13213	Functions
Q512, Q513	4822 209 62784	TC9215P	S471	4822 276 13213	Mute
Q555	4822 209 73064	NJM2068DD	S475	4822 273 20368	Source Select
Q561, Q562	4822 209 72748	LC7821	S551	4822 276 20468	MM/MC
Q563	4822 209 31538	LC7824			
L251, L252	4822 280 70354	Relay speaker			
L253	4822 280 20196	Relay phone			
L261, L262	4822 157 63085	Air coil SPK			
L401, L402	4822 148 81268	Pulse transformer 100 μ H			
L551, L552	4822 156 11019	Choke coil 320 μ H /00S			
R261, R267	4822 115 90167	Res. fuse 100E 1/4W	F290	4822 253 30396	Fuse 2.5A 250V /00S
R268	4822 116 83919	Res. fuse 820E 1/4W	F290	4822 253 30398	Fuse 2.5A 250V /05S
R271÷R274	4822 052 10102	Res. 1K 1/6W	F291	4822 253 30396	Fuse 2.5A 250V /00S
R311÷R314	4822 052 10102	Res. 1K 1/6W	F292	4822 253 30399	Fuse 6.3A 125V BK01
R323, R324	4822 100 20681	Res. trimmer 2.2k (B)	F294	4822 253 30397	Fuse 5A 250V /00S/01S/05S
R325÷R328	4822 115 90167	Res. fuse 100E 1/4W	F294	4822 253 30335	Fuse 5A 125V BK01
R329÷R332	4822 050 23322	Res. 3.3k 1/4W	F295	4822 253 30397	Fuse 5A 250V /00S/01S/05S
R333÷R336	4822 052 10479	Res. 47E 1/6W	F295	4822 253 30335	Fuse 5A 125V BK01
R337, R338	4822 116 82049	Res. 0.18E 3W	J211	4822 256 30329	Jack fuse clip /05S
R343, R344	4822 053 10688	Res. 6.8E 1W	J212	4822 267 30978	Jack fuse clip /05S
R351, R352	4822 052 10109	Res. 10E 1/6W	J221÷J223	4822 267 31194	Jack AC Outlet /00S/01S
R353	4822 053 10222	Res. 2.2k 1W	J221÷J223	4822 265 20588	Jack AC Outlet /05S
R355, R356	4822 053 11471	Res. 470E 2W	J225	4822 265 20589	Jack AC Outlet BK01
R357, R358	4822 053 10151	Res. 150E 1W	J231	4822 256 30329	Jack fuse clip BK01
R362, R363	4822 050 21108	Res. 1E 1/2W	J232	4822 267 30978	Jack fuse clip BK01
R365÷R368	4822 116 83918	Res. 6.8k 1/2W	J237	4822 256 30329	Jack fuse clip
R425, R475	4822 116 90241	Res. fusible 390E 1/4W	J238	4822 267 30978	Jack fuse clip
R489	4822 050 24701	Res. 4700E 1/4W	J239	4822 256 30329	Jack fuse clip
R521	4822 101 30794	Potm. treble 20k	J240	4822 267 30978	Jack fuse clip
R522	4822 101 30794	Potm. bass 20k	J262, J263	4822 290 81517	Terminal SPK /00S/01S/05S
R523	4822 101 30795	Potm. bal. 20k	J262, J263	4822 290 81518	Terminal SPK BK01
R546	4822 101 30796	Potm. volume 50k/5k	J431	4822 130 81254	Photo unit PIU520X
R577÷R580	4822 050 22212	Res. 2.21k 1/6W	J501	4822 265 20555	Jack headphone
R603, R604	4822 113 90141	Res. fuse 220E 1/4W	J571	4822 265 20558	Terminal RCA pin 4P
			V481÷488	4822 134 41116	Lamp 75 mA 12V
			X441	4822 242 73696	Seramic resonator, 8.00 MHz

ELECTRICAL PARTS LIST

002B	4822 218 10468	Front panel
003B	4822 381 11347	Lens, sensor
004B	4822 381 11346	Lens, ESI/PWR/MUT
010B	4822 413 41727	Knob, source select
011B	4822 413 41728	Knob, volume
012B	4822 462 71808	Cap, power button
013B	4822 413 41729	Knob, B/T/BAL
016B	4822 464 90746	Chassis, front
017B	4822 381 11348	Lens, process
018B	4822 381 11344	Lens, function
019B	4822 410 62051	Button, auto select
021B	4822 410 62049	Button, function
024B	4822 410 62051	Button, muting
027B	4822 381 11342	Lens, digital
028B	4822 381 11343	Lens, function lamp
029B	4822 381 11345	Lens, function LED
005G	4822 462 41888	Leg
013G	4822 466 93075	Support
023G	4822 404 60747	Link, power
028G	4822 412 20506	Knob, phono
908G	4822 532 60948	Bushing, AC cord
F011	4822 253 30398	Fuse, T2.5A 250V /01S
J012	4822 256 30233	Jack, fuse holder /01S
L001	4822 146 21678	Power transformer /00S/05S
	4822 146 21679	Power transformer /01S
	4822 146 21681	Power transformer BK01
001T	4822 736 21465	User manual /00S/01S/05S
	4822 736 21466	User manual BK01

			
Q261, Q262	4822 130 43233	2SC2240	
Q263	4822 130 42951	2SA970	
Q273, Q274	4822 130 42999	2SA1145	
Q275, Q276	4822 130 43283	2SC2705	
Q277, Q278	4822 130 60117	2SC3419(Y)	
Q279, Q280	4822 130 62334	2SB1353A(E)	
Q281, Q282	4822 130 62335	2SD2033A(E)	
Q283, Q284	4822 130 62738	2SD2276	
Q285, Q286	4822 130 62737	2SB1503	
Q287, Q288	4822 130 62954	2SD1895	
Q289, Q290	4822 130 63089	2SB1255	
Q291, Q292	4822 130 43819	2SC2878(B)	
Q293, Q294	4822 130 60107	2SA1048(Y)	
Q404	4822 130 62386	JC557B	
Q405	4822 130 63091	2SD1020(F)	
Q414, Q415	4822 130 42682	DTA144ES	
Q416, Q417	4822 130 62797	DTC144WS	
Q418, Q419	4822 130 62295	JC547B	
Q420÷Q423	4822 130 42682	DTA144ES	
Q424÷Q425	4822 130 63091	2SD1020(F)	
Q426, Q427	4822 130 42682	DTA144ES	
Q428÷Q434	4822 130 63091	2SD1020(F)	
Q551÷Q554	4822 130 42839	2SK369BL	
			
D251, D252	4822 130 80837	HSS81	
D253÷D256	4822 130 33305	1SS176 (MA165, 1SS254)	
D263÷D266	4822 130 33305	1SS176 (MA165, 1SS254)	
D267÷D270	4822 130 80317	MTZJ5.1B	
D271÷D274	4822 130 33305	1SS176 (MA165, 1SS254)	
D275÷D278	4822 130 80316	MTZJ3.6A	
D279÷D282	4822 130 80837	HSS81	
D283÷D286	4822 130 83095	BYV28	
D287	4822 130 80322	MTZJ15B	
D288	4822 130 80273	MTZJ8.2C	
D291, D292	4822 130 30984	S5VB20	
D301÷D308	4822 130 80839	S5688G	
D401, D402	4822 130 33305	1SS176(MA165, 1SS254)	
D403, D404	4822 130 80839	S5688G	
D411	4822 130 31554	MTZJ4.3B	
D412	4822 130 33305	1SS176 (MA165, 1SS254)	
D413, D414	4822 130 80839	S5688G	
D415	4822 130 33305	1SS176 (MA165, 1SS254)	
D416	4822 130 80839	S5688G	
D419, D420	4822 130 33305	1SS176 (MA165, 1SS254)	
D421, D422	4822 130 31554	MTZJ4.3B	
D423	4822 130 80839	S5688G	
D451, D452	4822 130 80837	HSS81	
D453, D455	4822 130 33305	1SS176 (MA165, 1SS254)	
D456	4822 130 33305	1SS176 (MA165, 1SS254)	
D461÷D468	4822 130 82978	L.E.D. LTL-4212N-071A	
D471÷D479	4822 130 82978	L.E.D. LTL-4212N-071A	
D481	4822 130 82978	L.E.D. LTL-4212N-071A	
D561÷D564	4822 130 80319	MTZJ9.1C	